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ELECTRONIC

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/08/2008 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-7, 9-11, 13-17 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama (US 2002/0016875), herein after referred as Yokoyama '875 in view of Ichinohe et al. (US 6,032,266), herein after referred to as Ichinohe et al. '266.

Referring to **claim 2**, Yokoyama '875 teaches, as claimed, a data management system (i.e.-serially connected electronic apparatus, page 1, ¶ 5) comprising: a processor (page 1, ¶ 6, line 14); and first and second ports (i.e.-first input output terminal 3 and the second input output terminal 5, page 2, ¶ 23, lines 1-2);

-wherein the processor is programmed to transmit a first controller handshake signal through said first data port (i.e.-processor provides first control signal thru output

terminal, page 1, paragraph 6, lines 20-22), and inhibit data pass-through at said second data port in connection with said first controller handshake signal transmission (i.e.-determines if second control signal has been input in response to the control signal and controls the change-over switch, page 1, paragraph 6, lines 22-26); and

However, Yokoyama '875 does not explicitly teach wherein the processor is programmed to transmit a second controller handshake signal to establish communication with a controller if said first handshake signal does not result in communication with a controller, and inhibit data pass-through at said first data port in connection with said second controller handshake signal transmission.

On the other hand, Ichinohe et al. '266 discloses a method for changing a route upon communication failure (col. 1, page 13-25).

At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Yokohama '875 and program the processor to transmit a second controller handshake signal to establish communication with a controller if said first handshake signal does not result in communication with a controller (i.e.-establish/change a new route upon failure of establishing communication with an existing route), and inhibit data pass-through at said first data port in connection with said second controller handshake signal transmission (Note: once new/alternate communication route is established, then data pass-thru is inhibited of the failed route), as taught by Ichinohe et al. '266. The motivation for doing so would have been an increased reliability of a data communication/transfer system due to a standby/ alternate routing method by using a system having redundant configuration.

As to **claim 3**, Yokoyama '875 teaches the system of claim 2, further comprising: a data hub that includes said first and second ports (page 2, ¶ 23, line 8).

As to **claim 4**, Yokoyama '875 teaches the system of claim 3, wherein said data hub comprises at least one switch connectable to alternately inhibit data pass-through at said first and second ports (page 2, ¶ 23, line 12).

As to **claim 5**, Yokoyama '875 teaches the system of claim 2, wherein said processor and said first and second ports are housed in an application module (see fig. 1, device 50 having first port 3, second port 5).

As to **claim 6**, Yokoyama '875 teaches the system of claim 2, further comprising: a controller module in communication with said processor through said first port (see fig. 1, device 50 connected with device 40 thru first port 3).

As to **claim 7**, Yokoyama '875 teaches the system of claim 6, further comprising: an application module in communication with said processor through said second port (see fig. 1, port 3 of device 60 connected to CPU 9 of device 50).

As to **claim 9**, Yokoyama '875 teaches the system of claim 6, wherein said processor is programmed to transmit an ID request to said controller module (see fig. 2, configuration of control command).

As to **claim 10**, Yokoyama '875 teaches the system of claim 9, wherein said controller module is programmed to transmit an application ID to said processor in response to said ID request (see fig. 2, configuration of Ack).

As to **claim 11**, Yokoyama '875 teaches the system of claim 10, wherein said controller module is programmed to append said application ID onto other data transmitted to said processor (see fig. 2, configuration of Ack).

Referring to **claim 13**, Yokoyama '875 teaches, as claimed, a method for coordinating data flow (i.e.-communication method of electronic apparatus, page 1, paragraph 2, lines 1-2), comprising:

- transmitting a first handshake signal from a processor through a first data port (i.e.-processor provides first control signal thru output terminal, page 1, ¶ 6, lines 20-22) to test for the presence of a controller at said first port; and inhibiting data pass-through

at a second data port during said first handshake signal transmission (i.e.-determines if acknowledgement signal – second control signal – has been input in response to the first control signal and controls the change-over switch, page 1, ¶ 6, lines 22-26).

However, Yokoyama '875 does not teach transmitting a second handshake signal from said processor through said second data port to test for the presence of a controller at said second data port if said first handshake signal does not result in communication with a controller at said first port; and inhibiting data pass-through at said first data port during the transmission of said second handshake signal.

On the other hand, Ichinohe et al. '266 discloses a method of changing a route upon communication failure (col. 1, page 13-25).

At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Yokoyama '875 and program the processor to transmit a second controller handshake signal to establish communication with a controller if said first handshake signal does not result in communication with a controller (i.e.-establish/change a new route upon failure of establishing communication with an existing route), and inhibit data pass-through at said first data port during the transmission of said second handshake signal (Note: once new/alternate communication route is established, then data pass-thru is inhibited of the failed route), as taught by Ichinohe et al. '266. The motivation for doing so would have been an increased reliability of a data communication/transfer system due to a standby/ alternate routing method by using a system having redundant configuration.

As to **claim 14**, Yokoyama '875 teaches the method of claim 13, wherein said inhibiting of data pass-through at said first and second ports further comprises switching at least one switch in a hub that comprises said first and second ports (see fig. 1, device 50 with switch 11 and port 5a and 5b).

As to **claim 15**, Yokoyama '875 teaches the method of claim 13, further comprising: transmitting an ID request from said processor to a controller found to be present at one of said ports (see fig. 2, configuration of control command).

As to **claim 16**, Yokoyama '875 teaches the method of claim 15, further comprising: transmitting an application ID to said processor from said controller in response to said ID request (see fig. 2, configuration of ACK – response command).

As to **claim 17**, Yokoyama '875 teaches the method of claim 16, further comprising: appending said application ID onto data retrieved by said controller module from a memory (i.e.-appending ID number of transmission destinations apparatus, see fig. 2, the ACK frame).

Referring to **claim 22**, Yokoyama '875 teaches, as claimed, a system configuration method (i.e.-communication method of electronic apparatus, page 1, ¶ 2, lines 1-2) comprising: testing for the presence of a controller (i.e.-an electronic apparatus 60 sends control command signal to a preceding apparatus 50, page 1, ¶ 7, lines 5-8 and see fig. 1) through a first port using a processor (see fig. 1, element 50 connected with element 60 thru first port 3a and 3b of CPU 9); and testing for the presence of said controller through a second port (see fig. 1, second port of element 60's 5b and 5a connected to element 70) if said controller is not found through said first port (page 1, ¶ 6, lines 20-26).

However, Yokoyama '875 does not teach where the testing for the presence of said controller is using the said processor.

At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Yokohama '875 and use a single processor since it is an alternate arrangement that is within the level of ordinary skill in the art. The motivation for doing so would have been to gain the commonly understood benefits of such modification, such as, decrease in size, simplified operation and reduced cost.

As to **claim 23**, Yokoyama '875 teaches the method of claim 22, further comprising: sending an ID request to said controller (see fig. 2, configuration of control command).

As to **claim 24**, Yokoyama '875 inherently teaches the method of claim 23, further comprising: sending an application ID to said processor from said controller; wherein said application ID represents an electronic address for said processor (i.e.-appending ID number of transmission destinations apparatus, see fig. 2, the ACK frame).

As to **claim 25**, Yokoyama '875 inherently teaches the method of claim 22, further comprising: inhibiting data pass-through at said second port while testing through said first port (i.e.-the change-over switch connects one port at a time either connected to 5b or 5a, see fig.1)

As to **claim 26**, Yokoyama '875 teaches the method of claim 22, sending an acknowledgement from said controller to said processor (see fig. 2, configuration of ACK – response command).

Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Misunas et al. (US 4,174,536), herein after referred to as Misunas et al. '536.

Referring to **claim 18**, Misunas et al. '536 teaches, as claimed, a data management system (i.e.-means for transfer of information, column 1, lines 1-4) comprising: a plurality of data ports coupled to a processor (see fig. 1, micro-processor 20 coupled to port 0-4); and an application module housing said processor (i.e.-switch comprising a microprocessor, column 2, lines 49-50).

However, Musinas et al. '536 does not explicitly teach the processor being programmed to transmit respective controller handshake signals to test for the presence of a controller alternately through each of said plurality of data ports.

On the other hand, it was well known in the art to use handshake signals/ protocol by allowing the sender, to ask the receiver, if the device is ready to receive, or for the receiver to reply with a positive/negative acknowledgement, and Official Notice of such is taken.

Thus, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Musinas et al. '536 and program the processor to transmit respective controller handshake signals to test for the presence of a controller alternately through each of said plurality of data ports, as was well known in the art at the time the invention was made. The motivation for doing so would have been to establish or maintain devices or programs in synchronization by exchanging messages or packets of data between two systems.

As to **claim 19**, Misunas et al. '536 teaches the data management system of claim 18, further comprising: a data hub that comprises said plurality of data ports (see fig. 1, random access memory 24 connected to port 0 to port 4).

As to **claim 20**, Misunas et al. '536 teaches the data management system of claim 18, further comprising: a controller in communication with said processor through one of said plurality of data ports (column 2, lines 55-59).

As to **claim 21**, Misunas et al. '536 inherently teaches the data management system of claim 20, wherein said controller is further programmed to send an application ID to said processor in response to receiving a transmission from said processor (column 5, lines 27-30).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama '875 in view of Ichinohe et al. '266 as applied to claim 2 above, and further in view of Massimiliano Brocchini (*EasyDisk Removable USB Hard Disk Review*), herein after referred to as Brocchini.

As to **claim 8**, Yokoyama '875 in view of common knowledge in the art teaches the limitations of claim 7 as discussed above. However, Yokoyama '875 does not teach the additional limitations of claim 8, wherein a plurality of memories detachably connected to said controller module.

On the other hand, Brocchini teaches the limitations of claim 8, a memory that can detachably be connected to controller module (i.e.-EasyDisk portable USB hard drive, page 1, paragraph 1, lines 8-9).

Yokoyama '875 and Brocchini are analogous art because both are from the same problem saving area, storing/transferring of data to a portable medium.

Thus, at the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the electronics apparatus of Yokoyama '875 in order to detachably connect plurality of memories to the controller module, as taught by Brocchini, using removable EasyDisk portable USB hard drive. The motivation for doing so would have been the easy portability, its size, lightness, low cost and the ability of transferring data from a PC to another in an easy and comfortable way (page 2, the conclusions section).

Therefore, it would have been obvious to combine Brocchini with Yokoyama '875 to obtain the invention as specified in the instant claim.

Response to Arguments

Applicant's arguments filed on 04/08/2008 have been fully considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIAS MAMO whose telephone number is (571) 270-1726 and fax number (571) 270-2726. The examiner can normally be reached on Monday thru Thursday from 9 AM to 5 PM EST. The examiner can also be reached on alternate Friday.

Art Unit: 2182

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai, can be reached on (571) 272-4176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/E. M./

/Alan S Chen/

Primary Examiner, Art Unit 2182

07/07/08